REMARKS

Claims 1-27 are pending in the present application.

Applicants wish to thank Examiner Thornton bringing their attention to the fact that dicumylperoxide was inadvertently left in the claims in response to paper 7.

The rejection of Claims 1, 2, 14, 15, 17, and 21 under 35 USC § 102(e) over Chaudhary et al is obviated by amendment.

The present invention provides, in part, a composition for laser processing comprising a polymer (A) containing 45% or more by mass of an ethylene unit as a repeating unit crosslinked with an organic peroxide (B), wherein said organic peroxide (B) is selected from the group consisting of t-butylhydroperoxide, 1,1,3,3-tetramethyl butylhydroperoxide, p-methanhydroperoxide, cumenhydroperoxide, diisopropyl-benzenehydroperoxide, 2,5-dimethylhexane-2,5-dihydroperoxide, 1,1-di-t-butylperoxy-3,3,5-trimethylcyclohexane, di-t-butylperoxide, t-butylcumylperoxide, 1,1-bis(t-butylperoxi)cyclododecane, 2,2-bis(t-butylperoxy)hexane, 1,1-di-t-butylperoxicyckohexane, 2,5-dimethy-2,5-di(t-butylperoxy)hexane, 2,5-dimethy-2,5-di(t-butylperoxi)hexine, 1,3-bis(t-butylperoxi-i-propyl)benzene, 2,5-dimethyl-2,5-di(benzoylperoxy)hexane, 1,1-bis(t-butylperoxi)-3,3,5-trimethylcyclohexane, n-butyl-4,4-bis(t-butylperoxi)varelate, benzoylperoxide, m-toruyl-peroxide, p-chlorobenzoylperoxide, 2,4-dicyclobenzoylperoxide, t-butylperoxy-i-butylate, t-butylperoxi-2-ethylhexanoate, t-butylperoxibenzoate, t-butylperoxi-i-propylcarbonate, and t-butylperoxi-allylcarbonate, as well as seals containing this composition (see Claims 1 and 14). Also within the present invention, this composition may further comprise a foaming agent (see Claims 2 and 15).

 

Chaudhary et al disclose a process comprising (a) forming a polymeric admixture including at least one polyolefin which has been prepared using a single site catalyst and at least a crosslinking amount of at least one poly(sulfonyl azide) crosslinking agent; (b) shaping the resulting admixture; and (c) heating the resulting shaped admixture to a temperature at least the decomposition temperature of the crosslinking agent (see Abstract and Claim 1) and products obtained thereby (see Abstract).

In making this rejection, the Examiner points to comparative samples A-C in which an ethylene/octane copolymer (ethylenic polymer) is admixed with dicumylperoxide (an organic peroxide). The Examiner further notes that Chaudhary et al disclose foaming agents, such as azodicarboamide, in comparative sample F. However, Applicants note that the amendment presented herein specifically defines the organic peroxide, which excludes the only organic peroxide disclosed by Chaudhary et al: dicumylperoxide. In order for a reference to anticipate an invention, the reference "must teach every element of the claim" (MPEP §2131). Accordingly, Chaudhary et al does not anticipate the present invention.

Applicants request withdrawal of the rejection of Claims 1, 2, 14, 15, 17, and 21 over Chaudhary et al.

The rejection of Claims 16, 18-20, and 22-27 under 35 USC § 103(a) over Chaudhary et al is obviated by amendment.

Applicants note that, citing In re Royka, 490 F.2d 981, 180 USPQ 580 (CCPA 1974), MPEP §2143.03 states: "To establish a prima facie obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art." Applicants submit that the disclosure of Chaudhary et al fails to meet this requirement, and as such the artisan would

have no motivation to obtain the claimed composition or any reasonable expectation of the advantageous obtained thereby.

Specifically, Applicants note that the only organic peroxide disclosed by Chaudhary et al is dicumylperoxide. Moreover, Chaudhary et al explicitly state that peroxides are undesirable crosslinking agents (see column 2, lines 25-28 and the claims). Therefore, the entire premise of Chaudhary et al is to teach the artisan away from the presently claimed invention, and thus the claimed organic peroxides. This *teaching away* is further emphasized by simple inspection of the Examples, which clearly show that the compositions containing dicumylperoxide are less desirable within their invention than the poly(sulfonyl azide). Therefore, Applicants submit that the disclosure of Chaudhary et al cannot even support a *prima facie* case of obviousness.

Withdrawal of this ground of rejection is requested.

On page 3 of paper number 10, the Examiner asserts, "any method may be used to make the material." As such, the Examiner appears to dismiss the "product-by-process" limitations of Claims 19 and 23. In the amendment presented herein, Applicants have amended these claims to recite: "A composition comprising a crosslinked polymer obtained by kneading a polymer...", in an effort to more concretely define the resultant composition. As such, Applicants note that this amendment serves to clarify the claimed invention and is not intended to alter the scope of the claims.

Further, with respect to Claims 14 and 15, Applicants have removed the product-by-process limitation "obtained by engraving with laser processing". Again, this amendment is serves to define the claimed invention in more concrete terms, rather than by method

limitations. Claims 14 and 15 now recites: "A seal made of a polymer composition comprising a polymer..."

In view of the foregoing, Applicants submit that all of the presently pending claims have been fully searched on the merits. In addition, the amendments presented herein do not raise new issues for consideration, as the primary scope altering amendment is the removal of dicumylperoxide from the Markush group in the claims. Therefore, Applicants submit that the present amendments should be entered and fully considered. Moreover, any new ground of rejection cannot be reasonably considered to have been necessitated by Applicants' amendment. Accordingly, it is expected that any new ground of rejection would be in a new non-final Office Action.

Applicants submit that the present application is now in condition for allowance. Early notification of such action is earnestly solicited.

Respectfully submitted,

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